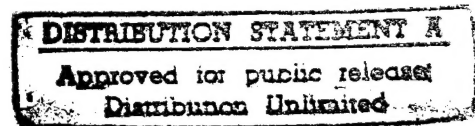


NAVAL WAR COLLEGE
Newport, R. I.

APPLYING THE COMMANDER'S ESTIMATE TO A COAST GUARD
OPERATION OTHER THAN WAR

by




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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College, the Department of the Navy or the U.S. Coast Guard.

Signature: _____

A handwritten signature in black ink, appearing to read "Vann J. Young", written over a horizontal line.

24 June 1996

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ABSTRACT

Military missions are successfully accomplished when thorough planning is conducted before any other actions are taken. Military leaders are charged with seeking out any advantage that will eventually lead to mission accomplishment. The Commander's Estimate lends such an advantage. It is time tested and proven to be an effective military planning process. The fact that it is logical, methodical and most importantly, flexible makes the process most appealing, especially when a mission requires prompt action. After neglecting the process for several years, the U.S. Navy has changed its course and is now emphasizing its importance. The U.S. Coast Guard should do the same.

Although included as one of our Nation's Armed Services, the Coast Guard is tasked with performing many non-combat missions, or better stated, Operations Other Than War. The Drug War and Alien Migration Interdiction are prime examples. Although not a new threat, the depletion of our fishery stocks, especially off the U.S. Northeast Coast is one of growing concern. The Coast Guard has the responsibility of enforcing fishing regulations. These fishing regulations are politically driven and are not particularly palatable to the enforcers, but a mission must be accomplished. To accomplish this law enforcement mission, the Coast Guard should take a new look at the threat and plan an effective operation to combat it. The Commander's Estimate process should be the tool used to start the planning.

Introduction and Thesis

Throughout its history, the United States Coast Guard has been called upon to conduct Operations Other Than War (OOTW). Two of the most recent and visible operations include drug and alien interdiction. However, less glamorous and often less publicized threats will arise requiring the Coast Guard to develop operations to effectively combat and overcome these threats. Although not a new issue, but one of growing concern in the U.S., is the depletion of domestic fish stocks. Coast Guard efforts in fisheries enforcement have increased considerably over the past three years. In particular, the First Coast Guard District Commander, with geographic responsibility from the Canadian border to Tom's River Inlet in New Jersey, dedicated more cutter and aircraft hours to this OOTW than to any other operation in fiscal year 1995.¹

Having studied the Commander's Estimate during the Joint Military Operations (JMO) semester, I am convinced that this process can and should be used by Coast Guard decision makers when faced with an OOTW. During the semester, I have been impressed by the Marine Corps, Air Force and Army's time honored commitment to the Commander's Estimate process both in war operations and OOTW. It has become evident through the emphasis of the Commander's Estimate in the JMO curriculum, that the Navy is back on track placing a high priority on the process. I do not mean to imply that just because the other military services use a tool that the Coast Guard must follow suit. However, a process that is so highly praised by decision makers as well as end users and has proven to be successful in military operations should not be ignored. The fact that the Commander's Estimate is logical, methodical and most importantly flexible lends even more credibility to the argument to use the process.

To demonstrate the usefulness and applicability to a Coast Guard OOTW, I will conduct a

Commander's Estimate at the Coast Guard operational level of the current fisheries situation off the U.S. Northeast coast.

In the Warning Order phase, I will assume the role of the Coast Guard Commandant. While conducting the five major steps of the estimate, I will assume the role of the First Coast Guard District Commander. Since this paper is academic in nature, I will reference current policy and accurately portray the current situation. However, all assumptions, decisions and recommendations in the estimate will be my own and do not necessarily reflect the beliefs and direction of the Commandant or the District Commander.

Warning Order: Direction from Commandant, U.S. Coast Guard

1. Background and Situation:

Fishing off the U.S. Northeast coast (this area includes the approximate First Coast Guard District AOR) in the waters referred to as the Northwest Atlantic, has a rich history. From the Colonial days to the present, commercial fishing has provided an important economic base and in essence, created a way of life for many in the area.² Northeast fisheries contribute "25% (over \$850 million) of the value and 18% of the volume of the Nation's commercial fisheries, on an annual basis."³ In 1991, the First Annual Report on the Status of U.S. Living Marine Resources reported "the marine fishing industries, both seafood and recreation, and allied enterprises have contributed over \$24 billion annually to the U.S. economy."⁴ These facts emphasize the importance of the entire fisheries industry.

The threat of over fishing from both foreign and domestic fishing vessels brought about the Magnuson Fishery and Conservation Act of 1976 (MFCMA, referred to as the Act for the remainder of this paper). The Act, as amended in 1990, "established the legislative baseline for

the overall fisheries conservation and management activities of the United States."⁵ The Act stresses the fact that fishery resources "contribute to the food supply, economy, and health of the Nation and provide recreational opportunities."⁶ The Act states that "a national program for the conservation and management of the fishery resources of the United States is necessary to prevent over fishing, to rebuild over fished stocks, to insure conservation, and to realize the full potential of the Nation's fishery resources."⁷ The Act also established the U.S. Exclusive Economic Zone (EEZ) which is also known as the 200 mile limit and Hague Line.⁸

Several agencies have been tasked by the Act to attain the national objectives. The main agencies include the Coast Guard, the National Oceanic and Atmospheric Administration (NOAA) and the National Marine Fisheries Service (NMFS). The latter two serve under the Department of Commerce. The Coast Guard has been given broad and general guidance from the Act. In short, the Coast Guard is charged with enforcing provisions of the Act, using organic resources and upon agreements with other elements of the Department of Defense, Federal and State agencies may access other resources including personnel, equipment and facilities.⁹ Coast Guard personnel have authority to board, inspect and search vessels. They may also seize vessels and fish catches when violations are detected.¹⁰ The Coast Guard can enforce provisions of the Act shoreside out to the EEZ. NOAA provides both scientific and legal services in enforcing the Act.¹¹ It is important to note that the maximum civil penalty for a fishing violation is \$100,000.¹² NMFS is charged with both managing the Nation's fisheries and enforcing the provisions of the Act. On the management side, NMFS works with Regional Fishery Councils (these will be described later), to develop Fishery Management Plans (FMPs--"plans developed by Regional Fishery Management Councils, or the Secretary of Commerce under certain circumstances, to

manage fishery resources in the U.S. EEZ pursuant to the Act"¹³) and implement fisheries regulations that the Coast Guard and NMFS Agents enforce. NMFS management is composed of biologists, economists and managers.¹⁴ On the enforcement side, NMFS Agents generally work shoreside to ensure fishery compliance. It is important to note that there are only nineteen NMFS Agents to cover the First Coast Guard District AOR.¹⁵

The Act established eight Regional Fishery Management Councils.¹⁶ The First Coast Guard District is concerned with the New England (NEFMC) and Mid-Atlantic Councils as they both fall within the District's boundaries. Councils vary in size from seven to nineteen voting members and generally four non-voting members. The majority of voting members are appointed by the Secretary of Commerce with input from State Governors.¹⁷ It is also important to recognize that the majority of voting members represent various segments of the fishing industry. The sole Federal voting member is the cognizant NMFS Regional Director. The Commander of the Coast Guard District responsible for the particular region holds a non-voting seat.¹⁸

Looking at the composition of the councils, it is quite apparent that the fishing industry is regulating itself. At one point, the NEFMC had industry participation from "three representatives of commercial fishermen, a spokesman for a Boston company that owned large offshore boats, a recreational fisherman who published a sports fishing magazine, two managers of fish processing companies and a fishing gear salesman."¹⁹ Other than in a period of crisis or emergency, the Department of Commerce rarely exercises its authority to create FMPs. Although council approved FMPs seek to save shrinking or endangered fish stocks based on biological assessments, the complexity of the plans in terms of enforcement indicate that industry survival and economics have top priority.²⁰

As of February 1996, there were thirteen FMPs in effect in the First Coast Guard District.²¹ Although the Northeast Multispecies Plan which deals mainly with Atlantic Groundfish (cod, haddock, yellowtail flounder, pollock and witch flounder to name a few) has been the focus of greatest attention, there are 45 other commercially exploited species in the AOR.²²

FMPs vary greatly in scope and direction. Some plans restrict certain fishing gear and establish minimum net mesh sizes. Others create closed fishing areas, marine sanctuaries and fishing seasons. Others mandate possession and size limits. Others limit fishing days and require special permits. Others require self-reporting and detailed log-keeping by the fishermen. It is even common for several of these listed requirements to apply to a single regulated species. It is fair to say that enforcement of these FMPs has become a nightmare for the Coast Guard and NMFS.²³

Uncertainty still exists among the scientists, resource managers, policy makers and enforcement agencies as to the effectiveness of the above mentioned conservation efforts. FMPs are amended so frequently that measuring their effectiveness over any substantial time frame is nearly impossible.²⁴ The draft proposal of Amendment Seven to the Northeast Multispecies Fishery Management Plan points out many of the problems and uncertainties. The proposal makes the point that "New England groundfish landings in 1993 were a third of the landings a decade earlier."²⁵ One must read between the lines to determine if this was due to FMPs that reduced catch limits or due to the high fish mortality rate and overall decline in fish stocks suggested by biologists.

2. Mission Tasking:

Commander, First Coast Guard District: Provide for my approval, a course of action (COA) that

will eventually lead to a fisheries enforcement operation in the First Coast Guard District AOR (this will be considered the theater of operations). Realize that you must rely mainly on resources that are organic. However, you will receive limited Medium Endurance Cutter (WMEC) and fixed wing aircraft support from Commander, Atlantic Area.²⁶ The background and situation that have been provided in the paragraphs above may be helpful in the process. I am also providing my philosophy along with specific and general mission guidance to aid you in developing your own mission statement.

3. Mission Philosophy and Guidance:

In February 1992, I established the strategic direction for Coast Guard fisheries enforcement and stated our main objective as follows:

To provide the at sea enforcement necessary to reach the national goals for living marine resource management and conservation. The result of effective enforcement is compliance. Fisheries management plans will not succeed if those involved in the fishery fail to comply with the management measures. A high level of compliance with a management measure is primarily the result of 1) good knowledge of the requirements, 2) industry acceptance that compliance is necessary for preservation of stocks, 3) high perceived risk of being detected in violation (deterrence), 4) certain and severe prosecution.²⁷

Although this mission is fisheries specific and has a high priority, all other Coast Guard missions remain in effect. The Coast Guard will always retain its identity as the life saving service. Therefore, search and rescue (SAR) will remain the highest priority. All day to day and seasonal operations such as aids to navigation (ATON), marine safety and icebreaking will be carried out without interruption. As intelligence and situations arise, the need for alien migration and interdiction operations (AMIO) and drug enforcement operations may take priority over fisheries. It is also imperative that the EEZ be continually enforced to deter illegal foreign fishing

in U.S. waters.²⁸

The background of the fisheries situation that I have provided points out the strategic problems associated with fisheries enforcement. Although FMPs are generally industry generated and not necessarily palatable, the Coast Guard is still responsible for ensuring compliance through law enforcement efforts. Recent televised GOP proposals indicate that the Department of Commerce may be dissolved by 1997. In 1994, I saw this coming and began sending Coast Guard Officers to postgraduate programs in the field of Marine Affairs at the University of Rhode Island and the University of Washington.²⁹ They will become our fishery management experts in the future. However, until my prediction comes true, you must provide vital enforcement information to the NEFMC and Mid-Atlantic Council in order to influence the FMP development process. This is our only political input to the fisheries management process.

I am concerned with maintaining a positive Coast Guard image. Fishermen and fishing communities count on the Coast Guard to enforce regulations with fairness. They must feel that they can trust our intentions and actions. It is imperative that we display a high degree of professionalism and knowledge of their industry. Remember that our Northeast Regional Fisheries School provides training for operational commanders and their boarding teams.

Budgets cuts and military down-sizing will continue to challenge operational decision making. We must be cost conscious and find ways to save money where ever possible. Using a single asset to meet multi-missions is always a great benefit.

Be creative in your approach. Past experience is a crucial element of decision making, but do not let that inhibit progressive thinking.

Commander's Estimate of the Situation

As the the Commander's Estimate process is a new concept for Coast Guard decision makers, I will use an academic approach. I will use the Naval War College Work-Sheet as a basic guideline to reach a course of action that is suitable, feasible and acceptable. Several phases will be amended or omitted as necessary to meet the needs of this particular operation.

Intelligence Brief: It is estimated that 70% of all fish caught in the theater are caught by vessels over 75 feet in length and caught beyond 20 nautical miles (nm) from shore. It is estimated that of the 22,000 fishing vessels in the theater, 3000 are over 75 feet in length. Fishermen can find buyers for their catches in practically every fishing port. However, 75% of all catches are sold in the major fishing ports where top dollar is paid.³⁰ The major fishing ports are listed in Appendix B.³¹

Fishermen use a number of techniques to violate the FMPs. They employ their own surveillance ships equipped with 60 mile range radar to detect law enforcement cutters. They use VHF radio scramblers to communicate with each other. They have been known to report false SAR cases in order to divert law enforcement cutters from the main fishing areas. They use cellular phones at sea to report leaving the pier thus "cheating" in the days at sea plan. They jettison illegal gear and retrieve it when enforcement assets depart the area. They conceal excess fish catches in areas practically inaccessible by law enforcement officers conducting boardings at sea.³²

Fishermen consider boardings by large Coast Guard units to be relatively ineffective. A fishing captain almost has to be asleep at the wheel to get caught with illegal gear in the water. Recognize that fishermen fishing illegally are usually alert and paying attention to the potential threat of an at sea boarding. A cutter approaching a fleet is cause for advance warning to

violators allowing sufficient time to make adjustments necessary to appear legal. The radar signature of a cutter--speed and size is somewhat obvious.³³

Fishermen use the very best in technology to aid in their effort to be more productive. Special dragging gear has enabled them to fish on rocky bottoms. Fishing vessels can also be adapted so as to participate in more than one fisheries. Sophisticated fish finders and fathometers have become standard equipment on most vessels.³⁴

Coast Guard fixed wing and rotary aircraft have been highly effective and critical in both drug enforcement operations and AMIO. Early aircraft detection by fishermen is highly unlikely.³⁵

Step 1: Mission Analysis

- (1) Source of the Mission: The source of the mission is Commandant, U.S. Coast Guard.
- (2) As Commander, First Coast Guard District, I am the supported commander.
- (3) Superior's Mission: The depletion of fish stocks off the Northeast coast is a threat of growing concern in the United States. Having been charged by the MFCMA, the Coast Guard must enforce FMPs to the best of its ability. The time has come to create an operation to deal with the fisheries threat. Compliance with FMPs is the measure of effectiveness for law enforcement efforts. Use of all First Coast Guard District assets including Groups and stations, ships and aircraft is authorized. Forces will be augmented by Atlantic Area Commander's WMECs and fixed wing aircraft. Creativity is encouraged.
- (4) Superior's Intent: Coast Guard efforts and forces must be aimed at the fishermen. For the purpose of the estimate, they will be considered the enemy. Actions that the Coast Guard take will be to ensure compliance with current FMPs. Although the Coast Guard has no votes on the NEFMC or Mid-Atlantic council, Commander, First Coast Guard District must try to influence

the councils' decisions and plans.

(5) Specified Tasks:

1. Devise an operation to ensure fishermen are complying with FMPs.
2. Try to influence the NEFMC and Mid-Atlantic Fisheries Management Council.
3. Maintain a positive Coast Guard image.
4. Be cost conscious.
5. Be creative.

(6) Implied Tasks:

1. Compliance is the key to fisheries management and enforcement success. There are five general areas that enforcement must focus on to be successful. Each of these areas are included in some or all of the FMPs. These areas include 1)HOW the fishermen catch their fish (gear and vessel type), 2)WHAT the fishermen are catching (species), 3)HOW MUCH the fishermen are catching (catch limits), 4)WHERE the fishermen are catching their fish and 5)WHEN the fishermen are catching their fish (seasons). Enforcement that covers all or most of these areas will lead to higher compliance rates.

2. Although the Coast Guard's role in fisheries enforcement has been traditionally "at sea," the MCFMA allows for enforcement at the pier. Therefore, other areas of enforcement should be explored.

(7) Purpose: The overall purpose of Coast Guard enforcement is to drive up the compliance rate among fishermen.

(8) Given Restraints: The Coast Guard must not alienate the fishermen or fishing communities when conducting a law enforcement operation.

(9) Given Constraints: Due to other operations outside the theater, such as drug interdiction and AMIO, the First District Commander must rely mainly on organic resources to carry out the mission.

(10) Assumptions Given by the Superior: The basic premise must be that if properly enforced, FMPs are the means to reach strategic objectives.

(11) Assumptions of the First Coast Guard District Commander: The more contact that Coast Guard personnel have with the enemy, the more likely violations of FMPs will be detected.

(12) Physical Objectives:

1. Maximize opportunities for Coast Guard personnel to have quality interaction time with the enemy.

2. Maximize Coast Guard ability to enforce the WHAT, HOW, HOW MUCH, WHERE and WHEN aspects of fishing activity.

(13) Restated Mission: The First Coast Guard District will conduct a fisheries law enforcement operation focusing on maximum compliance of FMPs. To ensure a high compliance rate among the fishermen, we must maximize opportunities for Coast Guard personnel to have quality interaction time with the enemy and maximize Coast Guard ability to enforce the WHAT, HOW, HOW MUCH, WHERE and WHEN aspects of fishing activity.

Step 2A: Considerations Affecting Courses of Action

(1) Characteristics of the Area of Operations:

1. The politics, economics and social aspects of the fishing industry in the theater of operations have been clearly presented in the Commandant's Warning Order. Technology has been presented in the Intelligence Brief.

2. The weather in the Northwest Atlantic is often unpredictable. Late Fall and Winter months generally bring frigid temperatures, high winds and rough seas. It is often difficult to conduct law enforcement boardings during these months.³⁶

3. There are many fishing ports scattered along the coast. Appendix B lists some of the major ports.

(2) Composition and Location of Forces:

1. Own Forces are listed in Appendix A.³⁷

2. Enemy Forces are listed in Appendix B.

Step 2B: Enemy Capabilities (ECs)

(1) Own Strengths:

1. Coast Guard small boat stations are dispersed along the entire coast and co-located with fishing fleets.

2. Coast Guard aircraft are difficult to detect by the enemy.

3. WMECs have great command and control capability.

4. WPBs are fast and have fairly good endurance.³⁸

(2) Own Weaknesses:

1. Coast Guard assets cannot physically be everywhere the fishermen are fishing or off-loading catches.

2. Coast Guard vessels are easily detected at sea.

3. Coast Guard assets are often tasked with several operations.

(3) Own Center of Gravity (COG): The force dedicated to fisheries enforcement is the Coast Guard COG.

(4) Enemy Capabilities (ECs) in Sequence of Probable Adoption:

1. EC#1: The enemy will fish and will not comply with FMPs.
2. EC#2: The enemy will fish and comply with FMPs.
3. EC#3: The enemy will not fish at all.

EC#1 and EC#2 will be analyzed with selected COAs in Step 3. EC#3 creates an automatic victory for the Coast Guard without expending any energy in law enforcement and thus, will not be analyzed further.

Step 2C: Courses of Action (COAs)

(1) Enemy Strengths:

1. There are approximately 22,000 fishing vessels in the theater.
2. Fishermen can operate independently or in groups.
3. Fishermen can easily detect Coast Guard assets at sea.
4. There are many small ports to off-load catches.
5. Fishermen use highly technical fishing gear and fish finding equipment.
6. Fishermen employ many deception techniques.

(2) Enemy Weaknesses:

1. Large fishing vessels are restricted to major fishing ports by their drafts and mooring requirements.³⁹

2. The best price for catches are found in major fishing ports.

3. Fines that accompany fishing violations seriously affect fishermen.⁴⁰

(3) Enemy's COG: The financial reward for fishing is the enemy's COG.

(4) Tentative COAs and Concept of Operations (CONOPS):

1. COA#1 & CONOPS: Conduct an all out at sea enforcement effort. Set up a three sector operation. Sector #1 from the shoreline out to 20 nautical miles (nm), will be covered by station small boats. Group Commanders will assign patrols based upon FMPs applying within their boundaries. Groups will provide command and control for the stations. Sector #2 from 20 nm out to 75 nm, will be covered by WPBs, and when available WLBs and WTGBs. Five vessels will conduct continuous boardings in this sector. The senior WMEC commander in Sector #3 will be responsible for command and control. Sector #3 from 75 nm out to the EEZ, will be covered by two WMECs and when available, one additional WMEC. HH-60Js, HH-65As, HU-25s and when available, HC-130s will conduct daily overflights of Sector #2 and #3 to report fishing activity to the senior WMEC.

2. COA#2 & CONOPS: Apply the majority of forces to shoreside enforcement. Small boat station personnel will conduct dockside boardings of fishing vessels in small ports within their boundaries. Station small boats will be used to monitor vessels returning from sea. Two WMECs, WPBs and when available, WLBs, WTGBs and an additional WMEC will concentrate on dockside boardings of fishing vessels returning from sea in the major fishing ports. HH-60Js, HH-65As, HU-25s and when available, HC-130s will be responsible for all off shore enforcement and intelligence gathering.

3. COA#3 & CONOPS: Establish a fishing vessel rider program. Every vessel over 75 feet will be required to have a Coast Guard law enforcement officer on board when engaged in fishing. Coast Guard personnel will come from First Coast Guard District ashore and afloat units. Two WMECs, HH-60Js, HH-65As, HU-25s and when available, HC-130s and an additional

WMEC will be responsible for all off shore enforcement and intelligence gathering.

4. COA#4 & CONOPS: Establish an extensive public affairs program aimed at educating the fishermen as to the need for compliance with FMPs. Small boat station, WPB and when available, WTGB and WLB personnel will conduct the program ashore. Two WMEC's, H60s, HU65s, HU25 and when available, HU130s and an additional WMEC will be responsible for all off shore enforcement and intelligence gathering.

(5) Suitability, Feasibility and Acceptability:

COA#1 and COA #2 will be retained. COA #3 will be discarded as it is not feasible. Although having Coast Guard personnel on board the vessels that are responsible for catching the most fish is appealing, there are not enough trained Coast Guard personnel to carry out the operation. Accommodations on board fishing vessels are unacceptable. This COA would hinder other Coast Guard operations as cutters and stations are labor intensive. COA#4 will also be discarded. Although the importance of compliance would be stressed, there would be too little focus on the law enforcement objective.

(6) The analysis of COA#1 and COA #2 vs. EC#1 and EC#2 indicates "how much better" one COA is than another. The analysis is contained in Appendix C. The Measures of Effectiveness (MOEs) chosen were directly related to our own physical objectives. Based on the outcome of the analysis, COA#2 is quantitatively better than COA#1.

Step 4: Comparison of COA #1 and COA#2

(1) COA#1 Advantages:

1. The operation is efficient at detecting the HOW and WHERE fishing aspects.
2. The operation maximizes the use of Coast Guard assets.

3. The operation upholds the Coast Guard tradition as sea-going service.

(2) COA#1 Disadvantages:

1. The cost of continually operating vessels and aircraft is high.
2. The operation is extremely taxing on personnel.
3. Boardings at sea are inherently unsafe.
4. Boardings at sea are extremely weather dependent.
5. The operation is complex.

(3) COA#2 Advantages:

1. Boardings at the dock are safe and controlled.
2. The operation maximizes the use of Coast Guard assets.
3. The operation is cost efficient.
4. The operation is efficient at detecting the WHAT and HOW MUCH fishing aspects.
5. The operation allows quality time to educate fishermen.

(4) COA#2 Disadvantages:

1. The operation relies heavily on aircraft to enforce FMPs off shore.
2. The operation reduces the number of cutters patrolling at sea.

(5) A Decision Matrix with Governing Factors is attached in Appendix D. Based on the analysis, COA#2 is better than COA#1.

(6) Actions to Overcome Disadvantages:

1. COA#1:

A. Safety is always a concern of Commanding Officers, especially at sea.

Commanding Officers are expected to take all factors (weather, sea state, and crew fatigue to

name a few) into account in deciding when conditions are safe for boardings at sea.

B. The cost associated with vessels operating at sea is unavoidable.

C. Quality command, control and communication are the keys in overcoming the complexity of the operation.

2. COA#2:

A. Aircraft are a key to enforcement off shore. A shortage is not anticipated.

However, should a shortage occur, cutters could be diverted on a need basis to fill any gap.

B. Since the operation focuses on dockside boardings, a reduction in patrolling cutters is inevitable.

(7) Both COA#1 and COA#2 are feasible and acceptable.

Step 5: The Decision

After conducting the Commander's Estimate, I have decided to adopt COA#2. This decision will be forwarded up the chain of command for final approval. Dockside law enforcement best meets the physical objectives, specified tasks and implied tasks of the mission. In particular, this operation maximizes opportunities for Coast Guard personnel to have quality interaction time with the fishermen, enables us to enforce the WHAT, HOW, HOW MUCH, WHERE and WHEN aspects of fishing activity in a controlled environment, is cost effective and is creative in its approach.

Conclusion

Operations Other than War will continue to play an important role within the Coast Guard. Having conducted the Commander's Estimate process on a "real threat," it is obvious that this process can be effectively applied when dealing with an OOTW. The logical and methodical

process in no way, inhibits decision makers from being flexible or creative. In fact, the process encourages the Commander to think "outside the box." Coast Guard decision makers need to adopt proven planning tools to better prepare them for assigned missions. The Commander's Estimate process should be one of those tools.

APPENDIX A

COMPOSITION AND LOCATION OF COAST GUARD FORCES

1. First Coast Guard District Groups, Small Boat Stations and Small Cutters:

Key: RHIB--Rigid Hull Inflatable Boat (22'-28') CG#--Number of personnel attached
 MLB--44' Motor Life Boat RHIM--Rigid Hull Inflatable Boat (16'-21')
 UTB--41' Utility Boat UTL--Light Utility Boat
 CGC--Small cutter 65' WYTL

GROUPS / STATIONS / SMALL CUTTERS	CG#	NUMBER & SMALL BOAT TYPE
Group Southwest Harbor, ME		
Station Eastport, ME	9	1 UTB, 1 RHIM
Station (Base) Southwest Harbor, ME	21	1 MLB, 1 UTB, 1 RHIM
Station Jonesport, ME	23	1 MLB, 2 UTBs, 2 RHIMs
Station Rockland, ME	31	1 MLB, 1 UTB, 1 RHIM
CGC Bridle	6	
CGC Tackle	6	
Group Portland, ME		
Station South Portland, ME	23	1 MLB, 1 UTB, 1 RHIM
Station Boothbay Harbor, ME	22	1 MLB, 1 UTB, 1 RHIM
Station Portsmouth Harbor, NH	32	1 MLB, 1 UTB, 1 RHIM
CGC Shackle	6	
Group Boston, MA		
Station Merrimack River, MA	13	2 MLBs, 1 UTB, 1 RHIM
Station Gloucester, MA	42	1 MLB, 2 UTBs, 1 RHIB
Station Boston, MA	6	1 RHIM
Station Point Allerton, MA	40	1 MLB, 2 UTBs, 1 UTL
Station Scituate, MA	10	1 MLB, 1 UTB, 1 RHIB, 1 UTL
CGC Pendant	6	

Group Woodshole, MA		
Station Block Island, RI	4	1 UTB
Station Brant Point, MA	27	1 MLB, 1 UTB, 1 UTL
Station Cape Cod Canal, MA	29	1 MLB, 1 UTB, 1 UTL
Station Menemsha, MA	10	1 MLB, 1 UTB
Station Provincetown, MA	28	1 MLB, 1 UTB
Station Woods Hole, MA	31	1 MLB, 1 UTB, 1 RHIM
Station Castle Hill, RI	34	1 MLB, 2 UTBs, 2 UTLs
Station Point Judith, RI	6	1 MLB, 1 RHIM
Group Long Island Sound, CT		
Station New Haven, CT	18	2 UTBs, 1 UTL
Station New London, CT	37	3 UTBs, 1 RHIM
Station Eatons Neck, NY	46	2 UTBs, 1 RHIM
Group Moriches, NY		
Station Fire Island	41	1 MLB, 1 UTB, 1 RHIM, 1 UTL
Station East Moriches	6	1 UTB
Station Jones Beach, NY	35	1 MLB
Station Montauk, NY	25	1 MLB, 1 UTB
Station Shinnecock, NY	32	1 MLB, 1 UTB, 1 RHIM
Group New York, NY		
Station New York, NY	52	5 UTBs, 1 RHIM
Station Fort Totten, NY	12	1 UTB
CGC Hawser	6	
CGC Wire	6	
Group Sandy Hook, NJ		
Station Manasquan Inlet, NJ	25	1 MLB, 1 UTB, 1 UTL
Station Rockaway, NY	28	1 MLB, 1 UTB, 1 RHIM
Station Sandy Hook, NJ	39	2 UTBs, 1 RHIM

Station Shark River, NJ	16	1 UTB, 1 RHIM
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2. First Coast Guard District Air Stations and Assets Attached:

Air Station Cape Cod, MA:

- 40 Pilots
- 4 HH-60J Jayhawks
- 3 HU-25 Guardians (Falcons)

Air Station Brooklyn, NY:

- 17 Pilots
- 4 HH-65A Dolphins

3. First Coast Guard District Cutters and Homeports:

CUTTER CLASS , SIZE & NAME	HOMEPORT
Island Class Patrol Boats (WPBs) 110'	
USCGC Adak	Sandy Hook, NJ
USCGC Bainbridge Island	Sandy Hook, NJ
USCGC Grand Isle	Gloucester, MA
USCGC Jefferson Island	Portland, ME
USCGC Monomoy	Woods Hole, MA
USCGC Sanibel	Woods Hole, MA
USCGC Wrangell	Portland, ME
Point Class Patrol Boats (WPBs) 82'	
USCGC Point Francis	New London, CT
USCGC Point Hannon	West Jonesport, ME
USCGC Point Turner	Newport, RI
USCGC Point Wells	Montauk, NY
Bay Class Icebreakers (WTGBs) 140'	

USCGC Penobscot Bay	Governors Island, NY
USCGC Sturgeon Bay	Governors Island, NY
USCGC Thunder Bay	Rockland, ME
Balsam Class Buoy Tenders (WLBs) 180'	
USCGC Bittersweet	Woods Hole, MA
USCGC Sorrel	Governors Island, NY
USCGC Spar	Portland, ME

4. Atlantic Area Assets available for First Coast Guard District Fisheries Operations:

--11 Reliance Class 210' Medium Endurance Cutters (WMECs)

--13 Bear Class 270' Medium Endurance Cutters (WMECs)

****Note--At most, three WMECs are available at any one time for Fisheries Operations.**

--7 HC-130 Hercules, Elizabeth City, NC

****Note--At most, two HC-130s are available at any one time for Fisheries Operations.**

APPENDIX B

COMPOSITION AND LOCATION OF ENEMY FORCES

1. Break down of Commercial Fishing Vessels and Fishing Boats by State and Size:

STATE	# VESSELS-- GREATER THAN 5 NET TONS	# BOATS-- LESS THAN 5 NET TONS	TOTALS
Connecticut	128	472	600
Maine	1822	5409	7231
Massachusetts	832	4529	5361
New Hampshire	144	410	554
New Jersey	293	1072	1365
New York	692	2970	3662
Rhode Island	276	2895	3171
GRAND TOTAL	4187	17757	21944

2. Major Fishing Ports as determined by Quantity of Catch and/or Value of Catch:

FISHING PORT	VALUE OF CATCH IN MILLION DOLLARS	QUANTITY IN MILLION POUNDS
New Bedford, MA	82.4	65.8
Portland, ME	43.6	63.9
Point Judith, RI	36.5	61.9
Gloucester, MA	27.3	50.1
Point Pleasant, NJ	15.3	37.0
Montauk, NY	13.4	N/A
Newport, RI	12.1	12.1

Rockland, ME	N/A	33.8
Provincetown-Chatham, MA	N/A	18.6
Hampton Bay, NY	N/A	12.8

3. There are also many small and medium fishing ports throughout the theater. Coast Guard small boat station commanders are the best source of information concerning fishing activity in their areas of responsibility.

APPENDIX C

ANALYSIS OF OPPOSING COURSES OF ACTION MATRIXES

ECs COAs	#1 FISH & DON'T COMPLY	#2 FISH & COMPLY	BEST RESULT
#1 AT SEA	3	5	X
#2 AT PIER	2	4	

MOE: Ability to detect HOW fishermen catch their fish. 1 Low - 5 High

ECs COAs	#1 FISH & DON'T COMPLY	#2 FISH & COMPLY	BEST RESULT
#1 AT SEA	2	5	
#2 AT PIER	5	5	X

MOE: Ability to detect WHAT the fishermen caught. 1 Low - 5 High

ECs COAs	#1 FISH & DON'T COMPLY	#2 FISH & COMPLY	BEST RESULT
#1 AT SEA	2	5	
#2 AT PIER	5	5	X

MOE: Ability to detect HOW MUCH the fishermen caught. 1 Low - 5 High

ECs COAs	#1 FISH & DON'T COMPLY	#2 FISH & COMPLY	BEST RESULT
#1 AT SEA	4	5	X
#2 AT PIER	2	5	

MOE: Ability to detect WHERE the fish were caught. 1 Low - 5 High

ECs COAs	#1 FISH & DON'T COMPLY	#2 FISH & COMPLY	BEST RESULT
#1 AT SEA	5	5	X
#2 AT PIER	5	5	X

MOE: Ability to detect WHEN (season) fishermen caught their fish. 1 Low - 5 High

ECs COAs	#1 FISH & DON'T COMPLY	#2 FISH & COMPLY	BEST RESULT
#1 AT SEA	2	3	
#2 AT PIER	5	5	X

MOE: Quality contact with the fishermen. 1 Low - 5 High

ECs COAs	#1 FISH & DON'T COMPLY	#2 FISH & COMPLY	BEST RESULT
#1 AT SEA	2	3	
#2 AT PIER	3	5	X

MOE: Ability to display Coast Guard professionalism. 1 Low - 5 High

ECs COAs	#1 FISH & DON'T COMPLY	#2 FISH & COMPLY	BEST RESULT
#1 AT SEA	3	3	
#2 AT PIER	4	4	X

MOE: Ability to educate fishermen on the merits of compliance. 1 Low - 5 High

APPENDIX D

COMPARISON OF OWN COURSES OF ACTION DECISION MATRIX

GOVERNING FACTORS	WEIGHT FACTOR (WF)	COA #1 AT SEA		COA #2 AT PIER	
			X WF		X WF
Simplicity	2	2	4	4	8
Decisiveness	3	4	12	4	12
Cost Efficiency	4	2	8	4	16
Command and Control	2	2	4	3	6
Safety	4	1	4	5	20
Dependence on Weather Conditions	3	1	3	4	12
Detects WHAT is caught	5	3	15	5	25
Detects HOW it's caught	3	4	12	3	9
Detects WHERE it's caught	4	5	20	3	12
Detects WHEN it's caught	1	5	5	5	5
Detects HOW MUCH was caught	5	3	15	5	25
Educates the Fishermen	2	3	6	4	8
Quality contact with Fishermen	3	3	9	5	15
Opportunity to display Professionalism	3	3	9	4	12
View of Coast Guard in Traditional Role	2	5	10	2	4
Logistics Requirements	2	2	4	3	6
TOTALS			140		195

Key: 1--Worst Case
5--Best Case

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